

경추간판탈출증에 대한 미세 전측방 Tunnel Approach의 결과

장우영 · 김근수 · 이정철 · 김철진 · 최하영 · 현수남* · 한동한**

= Abstract =

Results of Microsurgical Anterolateral Tunnel Approach for Cervical Disc Herniation

Woo-Young Jang, M.D., Keun-Soo Kim, M.D., Ph.D., Jung-Chung Lee, M.D., Ph.D.,
Chul-Jin Kim, M.D., Ph.D., Ha-Young Choi, M.D., Ph.D.,
Xiu-Nan Xuan, M.D.,* Dong-Han Han, M.D.**

Department of Neurosurgery, Chonbuk National University Medical School, Chonju, Korea

*Fu-Zhi Hospital Yan Bian University, * Yanji, Republic of China*

*Department of Neurosurgery, ** Yan Bian University, Medical School, Yanji, Republic of China*

Objective : The authors report the microsurgical anterolateral tunnel approach for the treatment of the cervical disc diseases and its postoperative surgical results.

Methods : All surgical procedures followed the method of classical microsurgical anterior discectomy. Small tunnel(7 - 8mm) was made on the disc space reaching to the posterior longitudinal ligament. The disc materials and bony spurs were removed through this tunnel. Thirty - one patients of cervical disc herniation(24 cases with pure disc herniation, 7 cases with combined cervical spondylosis) were evaluated on the symptoms, conformation in plain X - ray, C - T, and MRI. The follow up time was over 2 years .

Results : Postoperatively the result(following the out come scale) was excellent and good in Twenty - nine patients. One with fair result showed remnant disc particle and spur and another one is combined with cord contusion. One patient with lesion in C 3 - 4 space and two cervicothoracic junction showed excellent result. Two patients with osteoporosis also showed good results. Cervical spine curvature and disc space height were not changed on the plain X - ray and MRI in all patients. Twenty - nine patients were discharged within 3 days after surgery without any postoperative complications.

Conclusions : The microsurgical anterolateral tunnel approach could be indicated for the treatment of patients with cervical disc diseases and with difficulty in achieving interbody fusion(the higher cervical level and cervicothoracic junction, osteoporosis etc.).

KEY WORDS : Cervical disc · Spur · Osteoporosis · Tunnel approach.

서 론

joint)

(uncovertebral

가 , 가 MRI 가 C - T

3 - 4
7 - 1
가 .

수술방법

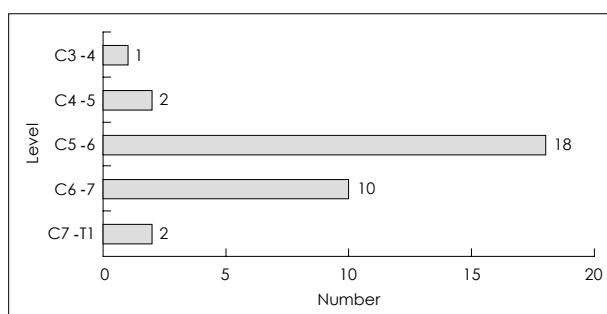
2)3)6) 3~4cm -
(pre - sternocleidomastoid approach)
가
2)5)7 - 9)11) (anterior lon-
gitudinal colli muscle)
1cm² V
1.5cm 7~8
mm (tunnel) (high speed drill)
tunnel approach
31
2
(vertebral artery)
가
(posterior longitudinal ligament)

수술대상

C - T MRI
(Fig. 1).
가
(tilting) drilling
microdis-
sector
(Table 1).
24 , 7 .
3 - 4 1 7 - 1
2 2

결 과

Table 1. Level of cervical disc herniation



1. 수술시 수술시간과 출혈

(20cc
(Fig. 2).

Tunnel Approach

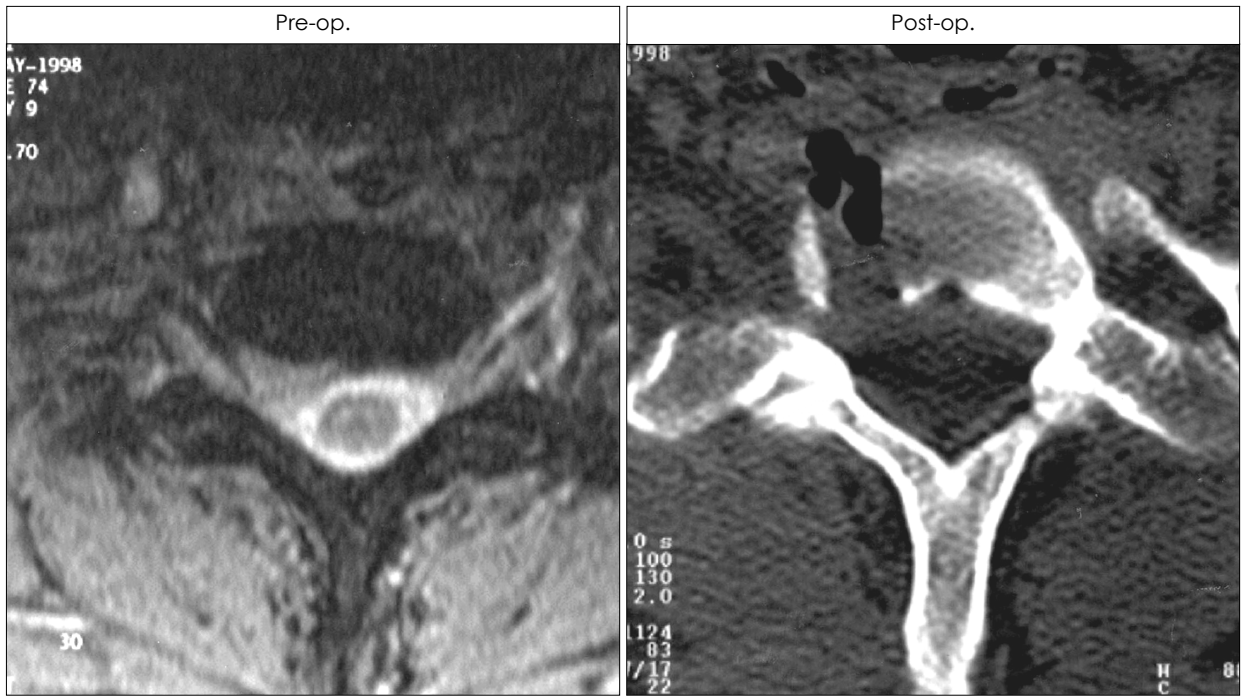


Fig. 1. Pre-op. : The herniated disc particle compressing the root and dural sac in the right side. Post-op. : Anterolateral tunnel and disappearance of the herniated disc particle.

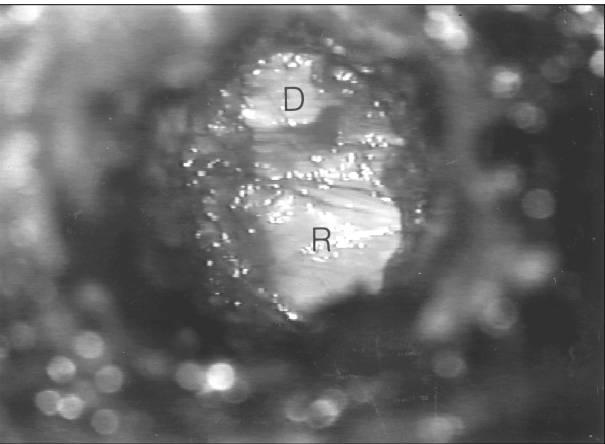
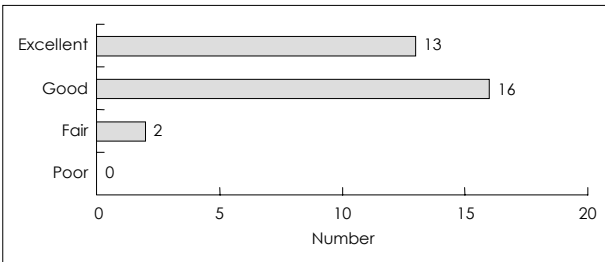


Fig. 2. Operative picture showing the dura and root clearly after removing of the posterior longitudinal ligament and herniated disc particle.

Table 2. Outcome scale after microsurgeal anterolateral tunnel approach

Excellent :	가
Good :	
Fair :	
Poor :	

Table 3. Surgical results of microsurgeal anterolateral tunnel approach



2. 수술 후 결과

	Table 2 Out come scale			
29	Good	3 - 4	7	-
1	Excellent			.

	2	Good
Fair	가 2	1
가		
		1

(Table 3).

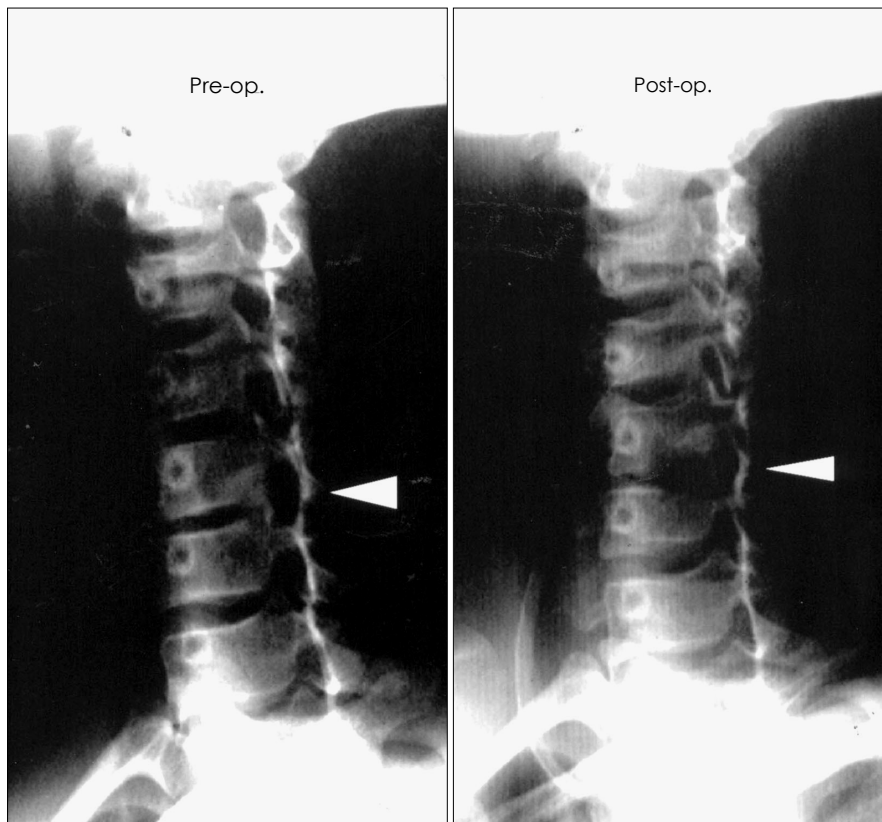


Fig. 3. Pre-operative and post-operative(after 2 years) C-spine plain X-ray films demonstrating the preservation of disc space height and curvature.

가

(kyphosis)
(Fig. 3). 29 3

1 1
10 3

고 안

1996 Jho⁷⁾⁸⁾
microsurgical anterior cervical foraminotomy
(vertebral artery)

(anterior longitudinal colli muscle) anterior
uncinate processes 6

가 7

1960 Hirsh⁴⁾

1976 Martins⁹⁾

가 2)5)7)8)11)
1)6)

1 7
(anterior lon-

Tunnel Approach

gitudinal colli muscle)

4)

3 - 4

7 - 1

1996 1 1998 12 31

Tunnel

tunnel

가

- : 2000 12 8
- : 2001 4 4
- : 561 - 712 634 - 18

: 063) 250 - 1870, : 063) 277 - 3273

E - mail : nsljc@moak.chonbuk.ac.kr

가

3 - 4 7 -

1

tunnel

Jho⁷⁾

2

tunnel

결 론

1996 1 1998 12 31
tunnel

2

1) 31 28
1
1

2) 31 29 3
3)

2

1 1 2 2

References

- 1) 박철형 · 김철진 · 정길수 · 김재은 · 김근수 · 이정청 : 골 융합술을 하지 않은 전방경유 경추간판 제거술의 결과, 대한신경외과학회지 25권 7호 1371-1376, 1996
- 2) Dunsker SB : Anterior Cervical discectomy with and without fusion. Clin Neurosurg 24 : 516-521, 1977
- 3) Hankinson HL, Wilson CB : Use of operating microscope in anterior cervical discectomy without fusion. J Neurosurg 43 : 452-256, 1975
- 4) Hirsch C : Cervical disc rupture : Diagnosis and therapy. Acta Orthop Scand 30 : 172-186, 1960
- 5) Hirsch C, Wickbom I, Lidstrom A : Cervical disc resection A follow-up of myelographic and Surgical procedure. J Bone Joint Surg Am 46 : 1811-1821, 1964
- 6) Jacobs B, Krueger EG, Leivy DM : Cervical spondylosis with radiculopathy. Results of anterior discectomy and interbody fusion. JAMA 211 : 2135-2139, 1970
- 7) Jho HD : Microsurgical anterior cervical foraminotomy for radiculopathy : A new approach to cervical disc herniation [see comments]. J Neurosurg 84 : 155-160, 1996
- 8) Jho HD : Decompression via microsurgical anterior foraminotomy for cervical spondylotic myelopathy. Technical note. J Neurosurg 86 : 297-302, 1997
- 9) Martins AN : Anterior Cervical discectomy with and without interbody bone graft. J Neurosurg 44 : 290-295, 1976
- 10) Robertson JT : Anterior operations for herniated disc and form myelopathy. Clin Neurosurg 25 : 245-250, 1978
- 11) Robertson JT, Jonhson SD : Anterior Cervical discectomy without fusion : Long-term results. Clin Neurosurg 27 : 440-449, 1980
- 12) Smith GW, Robinson RA : The Treatment of certain cervical-spine disorders by anterior removal of the intervertebral disc and interbody fusion. J Bone Joint Surg Am 40 : 607-624, 1958